

CHAPTER 65
ANIMAL FEEDING OPERATIONS

[Prior to 7/1/83, DEQ Ch 20]

[Prior to 12/3/86, Water, Air and Waste Management[900]]

567—65.1(455B) Definitions. In addition to the definitions in Iowa Code sections 455B.101 and 455B.171 and Iowa Code section 455B.161, the following definitions shall apply to this chapter:

“Abandoned confinement feeding operation structure” means the confinement feeding operation structure has been razed, removed from the site of a confinement feeding operation, filled in with earth, or converted to uses other than a confinement feeding operation structure so that it cannot be used as a confinement feeding operation structure without significant reconstruction.

“Adjacent” means, for the purpose of determining separation distance requirements pursuant to 65.11(455B), that two or more confinement feeding operations are adjacent if they have animal feeding operation structures that are separated at their closest points by less than the following:

1. 1,250 feet for confinement feeding operations with animal weight capacity less than 1,250,000 pounds for animals other than bovine, or less than 4,000,000 pounds for bovine.

2. 1,500 feet for confinement feeding operations with animal weight capacity from 1,250,000 pounds to less than 2,000,000 pounds for animals other than bovine; from 1,250,000 pounds to less than 2,500,000 pounds for swine in a farrow-to-finish operation; or 4,000,000 pounds to less than 6,000,000 pounds for bovine.

3. 2,500 feet for confinement feeding operations with animal weight capacity of 2,000,000 or more pounds for animals other than bovine; 2,500,000 or more pounds for swine in a farrow-to-finish operation; or 6,000,000 or more pounds for bovine.

4. These distances shall only be used to determine that two or more confinement feeding operations are adjacent if the animal feeding operation structure is constructed after March 20, 1996.

5. To determine if two or more confinement feeding operations are adjacent, the animal weight capacity of each individual operation shall be used. If two or more confinement feeding operations are not in the same animal weight capacity category, the greater animal weight capacity shall be used to determine the separation distance.

“Adjacent” means, for the purpose of determining whether a permit is required pursuant to 65.7(455B), that two or more confinement feeding operations are adjacent if they have animal feeding operation structures that are separated at their closest points by less than the following:

1. 1,250 feet for confinement feeding operations with combined animal weight capacity less than 625,000 pounds for animals other than bovine, or less than 1,600,000 pounds for bovine.

2. 2,500 feet for confinement feeding operations with combined animal weight capacity of 625,000 or more pounds for animals other than bovine, or 1,600,000 or more pounds for bovine.

3. These distances shall only be used to determine that two or more confinement feeding operations are adjacent if the animal feeding operation structure is constructed or expanded on or after May 21, 1998.

“Adjacent” means, for the purpose of determining whether an operation permit is required pursuant to 65.4(455B), that two or more open feedlots are adjacent if they are separated at their closest points, including any solids settling facility, by less than 1,250 feet.

“Aerobic structure” means an animal feeding operation structure other than an egg washwater storage structure which relies on aerobic bacterial action which is maintained by the utilization of air or oxygen and which includes aeration equipment to digest organic matter. Aeration equipment shall be used and shall be capable of providing oxygen at a rate sufficient to maintain an average of 2 milligrams per liter dissolved oxygen concentration in the upper 30 percent of the depth of manure in the structure at all times.

“Agricultural drainage well” means a vertical opening to an aquifer or permeable substratum which is constructed by any means including but not limited to drilling, driving, digging, boring, augering, jetting, washing, or coring and which is capable of intercepting or receiving surface or subsurface drainage water from land directly or by a drainage system.

“Agricultural drainage well area” means an area of land where surface or subsurface water drains into an agricultural drainage well directly or through a drainage system connecting to the agricultural drainage well.

“Anaerobic lagoon” means an unformed manure storage structure, if the primary function of the structure is to store and stabilize manure, the structure is designed to receive manure on a regular basis, and the structure’s design waste loading rates provide that the predominant biological activity is anaerobic. An anaerobic lagoon does not include the following:

1. A runoff control basin which collects and stores only precipitation-induced runoff from an animal feeding operation in which animals are confined to areas which are unroofed or partially roofed and in which no crop, vegetation, or forage growth or residue cover is maintained during the period in which animals are confined in the operation.

2. An anaerobic treatment system that includes collection and treatment facilities for all off gases.

“Animal” means a species classified as cattle, swine, horses, sheep, chickens or turkeys.

“Animal capacity” means the maximum number of animals which the owner or operator will confine in an animal feeding operation at any one time. In a confinement feeding operation, the animal capacity of all confinement buildings will be included in the determination of the animal capacity of the operation, unless the building has been abandoned in accordance with the definition of “abandoned animal feeding operation structure.”

“Animal feeding operation” means a lot, yard, corral, building, or other area in which animals are confined and fed and maintained for 45 days or more in any 12-month period, and all structures used for the storage of manure from animals in the operation. An animal feeding operation does not include a livestock market. Open feedlots and confinement feeding operations are considered to be separate animal feeding operations.

1. For purposes of water quality regulation, Iowa Code section 455B.200B as amended by 2002 Iowa Acts, chapter 1137, section 31, provides that two or more animal feeding operations under common ownership or management are deemed to be a single animal feeding operation if they are adjacent or utilize a common area or system for manure disposal. For purposes of the separation distances in Iowa Code section 455B.162, Iowa Code section 455B.161A as amended by 2002 Iowa Acts, chapter 1137, section 9, provides that two or more animal feeding operations under common ownership or management are deemed to be a single animal feeding operation if they are adjacent or utilize a common system for manure storage. The distinction is due to regulation of animal feeding operations for water quality purposes under the federal Clean Water Act. The Code of Federal Regulations at 40 CFR §122.23 (1995) sets out the requirements for an animal feeding operation and requires that two or more animal feeding operations under common ownership be considered a single operation if they adjoin each other or if they use a common area or system for manure disposal. However, this federal regulation does not control regulation of animal feeding operations for the purposes of the separation distances in Iowa Code section 455B.162, and therefore the definition is not required by federal law to include common areas for manure disposal.

2. To determine if two or more animal feeding operations are deemed to be one animal feeding operation, the first test is whether the animal feeding operations are under common ownership or management. If they are not under common ownership or management, they are not one animal feeding operation. For purposes of water quality regulation, the second test is whether the two animal feeding operations are adjacent or utilize a common area or system for manure disposal. If the two operations are not adjacent and do not use a common area or system for manure disposal, they are not one animal feeding operation. For purposes of the separation distances in Iowa Code section 455B.162, the second test is whether the two animal feeding operations are adjacent or utilize a common system for manure storage. If the two operations are not adjacent and do not use the same system for manure storage, they are not one animal feeding operation.

“*Animal feeding operation structure*” means a confinement building, manure storage structure, or egg washwater storage structure.

“*Animal unit*” means a unit of measurement based upon the product of multiplying the number of animals of each category by a special equivalency factor, as follows:

- | | |
|-----------------------------------------------------------------|-------|
| 1. Slaughter and feeder cattle | 1.000 |
| 2. Immature dairy cattle | 1.000 |
| 3. Mature dairy cattle | 1.400 |
| 4. Butcher or breeding swine weighing more than 55 pounds | 0.400 |
| 5. Swine weighing 15 pounds or more but not more than 55 pounds | 0.100 |
| 6. Sheep or lambs | 0.100 |
| 7. Horses | 2.000 |
| 8. Turkeys | 0.018 |
| 9. Broiler or layer chickens | 0.010 |

“*Animal unit capacity*” means a measurement used to determine the maximum number of animal units that may be maintained as part of an animal feeding operation at any one time, including as provided in Iowa Code sections 455B.161A as amended by 2002 Iowa Acts, chapter 1137, section 9, and 455B.200B as amended by 2002 Iowa Acts, chapter 1137, sections 3 to 32.

“*Animal weight capacity*” means the sum of the average weight of all animals in a confinement feeding operation when the operation is at full animal capacity. For confinement feeding operations with only one species, the animal weight capacity is the product of multiplying the animal capacity by the average weight during a production cycle. For operations with more than one species, the animal weight capacity of the operation is the sum of the animal weight capacities for all species.

EXAMPLE 1. Bill wants to construct a confinement feeding operation with two confinement buildings and an earthen manure storage basin. The capacity of each building will be 900 market hogs. The hogs enter the building at 40 pounds and leave at 250 pounds. The average weight during the production cycle is then 145 pounds for this operation. The animal weight capacity of the operation is 145 pounds multiplied by 1800 for a total of 261,000 pounds.

EXAMPLE 2. Howard is planning to build a confinement feeding operation with eight confinement buildings and an egg washwater storage lagoon. The capacity of each building will be 125,000 laying hens. The hens enter the building at around 2.5 pounds and leave at around 3.5 pounds. The average weight during the production cycle for these laying hens is 3.0 pounds. Manure will be handled in dry form. The animal weight capacity of the operation is 3.0 pounds multiplied by 1,000,000 for a total of 3,000,000 pounds.

EXAMPLE 3. Carol has an animal feeding operation with four confinement buildings with below floor formed concrete manure storage tanks and one open feedlot. One confinement building is a farrowing building with a capacity of 72 sows. One confinement building is a nursery building with a capacity of 1,450 pigs. The open feedlot contains 425 sows. Two of the confinement buildings are finishing buildings with a capacity of 1,250 market hogs. The farrowing building contains 72 sows at an average weight of 400 pounds for an animal weight capacity of 28,800 pounds. The nursery building contains 1,450 pigs with an average weight over the production cycle of 25 pounds for an animal weight capacity of 36,250 pounds. The two finishing buildings contain 2,500 market hogs (combined) with an average weight over the production cycle of 150 pounds for an animal weight capacity of 375,000 pounds. The total animal weight capacity of the confinement feeding operation is 440,050 pounds. The weights of the animals in open lots are not included in the calculation of the animal weight capacity of the confinement feeding operation.

“Applicant” means the person applying for a construction or operation permit for an animal feeding operation. The applicant shall be the owner or owners of the animal feeding operation.

“Business” means a commercial enterprise.

“Cemetery” means a space held for the purpose of permanent burial, entombment or interment of human remains that is owned or managed by a political subdivision or private entity, or a cemetery regulated pursuant to Iowa Code chapter 523I or 566A. A cemetery does not include a pioneer cemetery where there have been six or fewer burials in the preceding fifty years.

“Church” means a religious institution.

“Commercial enterprise” means a building which is used as a part of a business that manufactures goods, delivers services, or sells goods or services, which is customarily and regularly used by the general public during the entire calendar year and which is connected to electric, water, and sewer systems. A commercial enterprise does not include a farm operation.

“Commercial manure applicator” means a person who engages in the business of and charges a fee for applying manure on the land of another person.

“Common management” means significant control by a person of the management of the day-to-day operations of each of two or more animal feeding operations.

“Common ownership” means the ownership of an animal feeding operation as a sole proprietor, or a majority ownership interest held by a person, in each of two or more animal feeding operations as a joint tenant, tenant in common, shareholder, partner, member, beneficiary, or other equity interest holder. The majority ownership interest is a common ownership interest when it is held directly, indirectly through a spouse or dependent child, or both.

“Confinement feeding operation” means an animal feeding operation in which animals are confined to areas which are totally roofed.

“Confinement feeding operation building” or *“confinement building”* means a building used in conjunction with a confinement feeding operation to house animals.

“Confinement feeding operation structure” means an animal feeding operation structure that is part of a confinement feeding operation.

“Confinement site” means a site where there is located a manure storage structure which is part of a confinement feeding operation, other than a small animal feeding operation.

“Confinement site manure applicator” means a person who applies manure stored at a confinement site other than a commercial manure applicator.

“Construction permit” means a written approval of the department to construct an animal feeding operation structure.

“Controlling interest” means ownership of a confinement feeding operation as a sole proprietor or a majority ownership interest held by a person in a confinement feeding operation as a joint tenant, tenant in common, shareholder, partner, member, beneficiary, or other equity interest holder. The majority ownership interest is a controlling interest when it is held directly, indirectly through a spouse or dependent child, or both. The majority ownership interest must be a voting interest or otherwise control management of the confinement feeding operation.

“*Covered*” means organic or inorganic material, placed upon an animal feeding operation structure used to store manure, which significantly reduces the exchange of gases between the stored manure and the outside air. Organic materials include, but are not limited to, a layer of chopped straw, other crop residue, or a naturally occurring crust on the surface of the stored manure. Inorganic materials include, but are not limited to, wood, steel, aluminum, rubber, plastic, or Styrofoam. The materials shall shield at least 90 percent of the surface area of the stored manure from the outside air. Cover shall include an organic or inorganic material which current scientific research shows reduces detectable odor by at least 75 percent. A formed manure storage structure directly beneath a floor where animals are housed in a confinement feeding operation is deemed to be covered.

“*Critical public area*” means land that is owned or managed by the federal government, by the department, or by a political subdivision and that has unique scenic, cultural, archaeological, scientific, or historic significance or contains a rare or valuable ecological system. Critical public areas include:

- State wildlife refuges listed in 571—subrule 52.1(2);
- Recreation areas, state parks, state parks managed by another governmental agency, and state preserves as listed in 571—61.2(461A);
- County parks and recreation areas listed in “Outdoor Adventure Guide,” May 2002, Iowa Association of County Conservation Boards, which is incorporated by reference and is on file in the state law library;
- National wildlife refuges listed on the “Iowa Map Page,” June 24, 2002, which is incorporated by reference; this document is on file at the state law library where it is also available via the Internet at <http://midwest.fws.gov/maps/iowa.htm>;
- National monuments and national historic sites listed on the “National Park Service Guide for Iowa,” June 24, 2002, which is incorporated by reference; this document is on file at the state law library where it is also available via the Internet at <http://165.83.219.77/parksearch/state/state.cfm?statevar=ia>;
- Parks in Iowa that are under the jurisdiction of the U.S. Army Corps of Engineers and listed in “Lakeside Recreation for the Upper Mississippi Basin States,” June 24, 2002, which is incorporated by reference; this document is on file at the state law library where it is also available via the Internet at <http://www.usace.army.mil/inet/functions/cw/cecwo/uppermis.htm>.

“*Cropland*” means any land suitable for use in agricultural production including, but not limited to, feed, grain and seed crops, fruits, vegetables, forages, sod, trees, grassland, pasture and other similar crops.

“*Deep well*” means a well located and constructed in such a manner that there is a continuous layer of low permeability soil or rock at least 5 feet thick located at least 25 feet below the normal ground surface and above the aquifer from which water is to be drawn.

“*Designated area*” means a known sinkhole, or a cistern, abandoned well, unplugged agricultural drainage well, agricultural drainage well surface tile inlet, drinking water well, designated wetland, lake, or water source. A designated area does not include a terrace tile inlet or surface tile inlet other than an agricultural drainage well surface tile inlet.

“*Discontinued animal feeding operation*” means an animal feeding operation whose structures have been abandoned or whose use has been discontinued as evidenced by the removal of all animals and the owner or operator has no immediate plans to repopulate.

“*Discontinued animal feeding operation structure*” means an animal feeding operation structure that has been abandoned or whose use has been discontinued as evidenced by the removal of all animals from the structure and the owner or operator has no immediate plans to repopulate.

“Document” means any form required to be processed by the department under this chapter regulating animal feeding operations, including but not limited to applications or related materials for permits as provided in Iowa Code section 455B.200A as amended by 2002 Iowa Acts, chapter 1137, sections 28 and 29, manure management plans as provided in Iowa Code section 455B.203 as amended by 2002 Iowa Acts, chapter 1137, sections 38 to 41, comment or evaluation by a county board of supervisors considering an application for a construction permit, the department’s analysis of the application including using and responding to a master matrix pursuant to 2002 Iowa Acts, chapter 1137, section 35, and notices required under those sections.

“Earthen manure storage basin” means an earthen cavity, either covered or uncovered, which, on a regular basis, receives manure discharges from a confinement feeding operation if accumulated manure from the basin is completely removed at least once each year.

“Earthen waste slurry storage basin” means an uncovered and exclusively earthen cavity which, on a regular basis, receives manure discharges from a confinement animal feeding operation if accumulated manure from the basin is completely removed at least twice each year and which was issued a permit, constructed or expanded on or after July 1, 1990, but prior to May 31, 1995.

“Educational institution” means a building in which an organized course of study or training is offered to students enrolled in kindergarten through grade 12 and served by local school districts, accredited or approved nonpublic schools, area educational agencies, community colleges, institutions of higher education under the control of the state board of regents, and accredited independent colleges and universities.

“Egg washwater storage structure” means an aerobic or anaerobic structure used to store the wastewater resulting from the washing and in-shell packaging of eggs. It does not include a structure also used as a manure storage structure.

“Enforcement action” means an action against a confinement feeding operation initiated by the department or the attorney general to enforce the provisions of Iowa Code chapter 455B or rules adopted pursuant to the chapter. An enforcement action begins when the department issues an administrative order to the person, when the department notifies a person in writing of intent to recommend referral or the commission refers the action to the attorney general pursuant to Iowa Code section 455B.141 or 455B.191, or when the attorney general institutes proceedings pursuant to section 455B.112, whichever occurs first. An enforcement action is pending until final resolution of the action by satisfaction of an administrative order; rescission or other final resolution of an administrative order or satisfaction of a court order, for which all administrative and judicial appeal rights are exhausted, expired, or waived.

“Family” means persons related to each other as spouse, parent, grandparent, sibling, and other lineal descendants of the grandparents or their spouses.

“Family farm member” means a person who participates in the same agricultural operation with a spouse, parent, grandparent, child, grandchild or sibling.

“Formed manure storage structure” means a covered or uncovered impoundment used to store manure from an animal feeding operation, which has walls and a floor constructed of concrete, concrete block, wood, steel, or similar materials. Similar materials may include, but are not limited to, plastic, rubber, fiberglass, or other synthetic materials. Materials used in a formed manure storage structure shall have the structural integrity to withstand expected internal and external load pressures.

“Freeboard” means the difference in elevation between the liquid level and the top of the lowest point of animal feeding operation structure’s berm or the lowest external outlet from a formed manure storage structure. However, for a formed manure storage structure meeting the requirements of 65.15(20, “freeboard” means the difference in elevation between the liquid level and the structure’s overflow level.

“Grassed waterway” means a natural or constructed channel that is shaped or graded to required dimensions and established in suitable vegetation for the stable conveyance of runoff.

“Highly erodible land” means a field that has one-third or more of its acres or 50 acres, whichever is less, with soils that have an erodibility index of eight or more, as determined by rules promulgated by the United States Department of Agriculture.

“Human sanitary waste” means wastewater derived from domestic uses including bathroom and laundry facilities generating wastewater from toilets, baths, showers, lavatories and clothes washing.

“Incidental” means a duty which is secondary or subordinate to a primary job or function.

“Incorporation” means a soil tillage operation following the surface application of manure which mixes the manure into the upper four inches or more of soil.

“Indemnity fund” means the manure storage indemnity fund created in Iowa Code section 455J.2.

“Injection” means the application of manure into the soil surface using equipment that discharges it beneath the surface.

“Interest” means ownership of a confinement feeding operation as a sole proprietor or a 10 percent or more ownership interest held by a person in a confinement feeding operation as a joint tenant, tenant in common, shareholder, partner, member, beneficiary, or other equity interest holder. The ownership interest is an interest when it is held directly, indirectly through a spouse or dependent child, or both.

“Internet” means the federated international system that is composed of allied electronic communication networks linked by telecommunication channels that uses standardized protocols, and that facilitates electronic communication services, including but not limited to use of the World Wide Web; the transmission of electronic mail or messages; the transfer of files and data or other electronic information; and the transmission of voice, image, and video.

“Karst terrain” means land having karst formations that exhibit surface and subterranean features of a type produced by the dissolution of limestone, dolomite, or other soluble rock and characterized by closed depressions, sinkholes, or caves. If a 25-foot vertical separation distance can be maintained between the bottom of an unformed manure storage structure and limestone, dolomite, or other soluble rock, then the structure is not considered to be in karst terrain.

“Livestock market” means any place where animals are assembled from two or more sources for public auction, private sale, or on a commission basis, which is under state or federal supervision, including a livestock sale barn or auction market, if such animals are kept for ten days or less.

“Low-pressure irrigation system” means spray irrigation equipment which discharges manure from a maximum height of 9 feet in a downward direction, and which utilizes spray nozzles which discharge manure at a maximum pressure of 25 pounds per square inch.

“Major water source” means a water source that is a lake, reservoir, river or stream located within the territorial limits of the state, or any marginal river area adjacent to the state, if the water source is capable of supporting a floating vessel capable of carrying one or more persons during a total of a six-month period in one out of ten years, excluding periods of flooding. Major water sources in the state are listed in Table 1 and Table 2 at the end of this chapter.

“Man-made manure drainage system” means a drainage ditch, flushing system, or other drainage device which was constructed by human beings and is used for the purpose of transporting manure.

“Manure” means animal excreta or other commonly associated wastes of animals including, but not limited to, bedding, litter, or feed losses. Manure does not include wastewater resulting from the washing and in-shell packaging of eggs.

“Manure storage structure” means a formed manure storage structure or an unformed manure storage structure. A manure storage structure does not include an egg washwater storage structure.

“New animal feeding operation” means an animal feeding operation whose construction was begun after July 22, 1987, or whose operation is resumed after having been discontinued for a period of 12 months or more.

“Nonpublic water supply” means a water system that has fewer than 15 service connections or serves fewer than 25 people, or one that has more than 15 service connections or serves more than 25 people for less than 60 days a year.

“Open feedlot” means an unroofed or partially roofed animal feeding operation in which no crop, vegetation, or forage growth or residue cover is maintained during the period that animals are confined in the operation.

“Operation permit” means a written permit of the department authorizing the operation of a manure control facility or part of one.

“Owner” means the person who has title to the property where the animal feeding operation is located or the person who has title to the animal feeding operation structures. It does not include a person who has a lease to use the land where the animal feeding operation is located or to use the animal feeding operation structures.

“Permanent vegetation cover” means land which is maintained in perennial vegetative cover consisting of grasses, legumes, or both, and includes, but is not limited to, pastures, grasslands or forages.

“Primary highway” means a road designated as an interstate, U.S. highway or state highway in the 2002 Iowa Transportation Map, including streets in municipalities under the jurisdiction of the department of transportation.

“Professional engineer” means a person engaged in the practice of engineering as defined in Iowa Code section 542B.2 who is issued a certificate of licensure as a professional engineer pursuant to Iowa Code section 542B.17.

“Public thoroughfare” means a road, street, or bridge that is constructed or maintained by the state or a political subdivision.

“Public use area” means that portion of land owned by the United States, the state, or a political subdivision with facilities which attract the public to congregate and remain in the area for significant periods of time. Facilities include, but are not limited to, picnic grounds, campgrounds, cemeteries, lodges, shelter houses, playground equipment, lakes as listed in Table 2 at the end of this chapter, and swimming beaches. It does not include a highway, road right-of-way, parking areas, recreational trails or other areas where the public passes through, but does not congregate or remain in the area for significant periods of time.

“Public water supply” (also referred to as a system or a water system) means a system for the provision to the public of piped water for human consumption, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Such term includes (1) any collection, treatment, storage, and distribution facilities under control of the supplier of water and used primarily in connection with such system, and (2) any collection (including wells) or pretreatment storage facilities not under such control which are used primarily in connection with such system. A public water supply system is either a “community water system” or a “noncommunity water system.”

“Qualified confinement feeding operation” means a confinement feeding operation which has an animal unit capacity of:

1. 5,333 or more for animals other than swine as part of a farrowing and gestating operation or farrow-to-finish operation or cattle as part of a cattle operation;
2. 2,500 or more for a swine farrowing and gestating operation;
3. 5,400 or more for a swine farrow-to-finish operation;
4. 8,500 or more for a confinement feeding operation maintaining cattle.

“Release” means an actual, imminent or probable discharge of manure from an animal feeding operation structure to surface water, groundwater, drainage tile line or intake, or to a designated area resulting from storing, handling, transporting or land-applying manure.

“Religious institution” means a building in which an active congregation is devoted to worship.

“Research college” means an accredited public or private college or university, including but not limited to a university under control of the state board of regents as provided in Iowa Code chapter 262, or a community college under the jurisdiction of a board of directors for a merged area as provided in Iowa Code chapter 260C, if the college or university performs research or experimental activities regarding animal agriculture or agronomy.

“Residence” means a house or other building, including all structures attached to the building, not owned by the owner of the animal feeding operation, which meets all of the following criteria at the location of the intended residence:

1. Used as a place of habitation for humans on a permanent and frequent basis.
2. Not readily mobile.
3. Connected to a permanent source of electricity, a permanent private water supply or a public water supply system and a permanent domestic sewage disposal system including a private, semipublic or public sewage disposal system.
4. Assessed and taxed as real property.

If a house or other building has not been occupied by humans for more than six months in the last two years, or if a house or other building has been constructed or moved to its current location within six months, the owner of the intended residence has the burden of proving that the house or other building is a residence. Paragraph “3” shall not apply to a house or other building inhabited by persons who are exempt from the compulsory education standards of Iowa Code section 299.24 and whose religious principles or tenets prohibit the use of the utilities listed.

“Restricted spray irrigation equipment” means spray irrigation equipment which disperses manure through an orifice at a rate of 80 pounds per square inch or more.

“Runoff control basin” means an impoundment designed and operated to collect and store runoff from an open feedlot.

“School” means an educational institution.

“Secondary containment barrier” means a structure used to retain accidental manure overflow from a manure storage structure.

“Shallow well” means a well located and constructed in such a manner that there is not a continuous layer of low permeability soil or rock (or equivalent retarding mechanism acceptable to the department) at least 5 feet thick, the top of which is located at least 25 feet below the normal ground surface and above the aquifer from which water is to be drawn.

“Small animal feeding operation” means an animal feeding operation which has an animal unit capacity of 500 or fewer animal units.

“Solids settling facility” means a basin, terrace, diversion, or other structure which is designed and operated to remove settleable solids from open feedlot runoff.

“Spray irrigation equipment” means mechanical equipment used for the aerial application of manure, if the equipment receives manure from a manure storage structure during application via a pipe or hose connected to the structure, and includes a type of equipment customarily used for aerial application of water to aid the growing of general farm crops.

“Substantial improvements” means increasing the animal unit capacity of a facility by 1 percent through 150 percent.

“Substantial labor” means providing 50 percent or more of the total annual hours of physical work necessary to maintain animals in a confinement feeding operation.

“Swine farrow-to-finish operation” means a confinement feeding operation in which porcine are produced and in which a primary portion of the phases of the production cycle is conducted at one confinement feeding operation. Phases of the production cycle include, but are not limited to, gestation, farrowing, growing and finishing. At a minimum, farrowing, growing, and finishing shall be conducted at the operation with a majority of the pigs farrowed at the site finished to market weight in order to qualify as a farrow-to-finish operation.

“Thoroughfare” means a road, street, bridge or highway open to the public and constructed or maintained by the state or a political subdivision.

“Unformed manure storage structure” means a covered or uncovered impoundment used to store manure, other than a formed manure storage structure, which includes an anaerobic lagoon, aerobic structure, or earthen manure storage basin.

“*Watercourse*” means any lake, river, creek, ditch, or other body of water or channel having definite banks and bed with water flow or the occurrence of water, except lakes or ponds without outlet to which only one landowner is riparian. Watercourse does not include water flow or the occurrence of water in a terrace, grassed waterway, solids settling basin, road ditch, areas subject to rill erosion, or other similar areas.

“*Water of the state*” means any stream, lake, pond, marsh, watercourse, waterway, well, spring, reservoir, aquifer, irrigation system, drainage system, and any other body or accumulation of water, surface or underground, natural or artificial, public or private, which are contained within, flow through or border upon the state or any portion thereof.

“*Water source*” means a lake, river, reservoir, creek, stream, ditch, or other body of water or channel having definite banks and a bed with water flow, except lakes or ponds without outlet to which only one landowner is riparian.

“*Wetted perimeter*” means the outside edge of land where the direct discharge of manure occurs from spray irrigation equipment.

567—65.2(455B) Minimum manure control requirements and reporting of releases. Water pollution control facilities shall be constructed and maintained to meet the minimum manure control requirements stated in subrules 65.2(1) to 65.2(8) of this rule. A release shall be reported to the department as provided in subrule 65.2(9) of this rule.

65.2(1) The minimum level of manure control for any open feedlot shall be the removal of settleable solids from the manure prior to discharge into a water of the state.

a. Settleable solids may be removed by use of solids-settling basins, terraces, diversions, or other solid-removal methods. Construction of solids-settling facilities shall not be required where existing site conditions provide adequate settleable solids removal.

b. Removal of settleable manure solids shall be considered adequate when the velocity of manure flows has been reduced to less than 0.5 foot per second for a minimum of five minutes. Sufficient capacity shall be provided in the solids-settling facilities to store settled solids between periods of manure application and to provide required flow-velocity reduction for manure flow volumes resulting from precipitation events of less intensity than the ten-year, one-hour frequency event. Solids-settling facilities receiving open feedlot runoff shall provide a minimum of 1 square foot of surface area for each 8 cubic feet of runoff per hour resulting from the ten-year, one-hour frequency-precipitation event.